Problems from smoking can be passed down through generations, new research suggests

Smoking may not just be bad for men. It may be bad for their children and grandchildren.

By Martin Finucane

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New research suggests that smoking by fathers may cause changes in their sperm that lead to cognitive deficits in their children — and even their grandchildren.

The study, which looked at male mice fed nicotine in their drinking water, was published Tuesday in the journal PLOS Biology by Pradeep Bhide of Florida State University in Tallahassee and colleagues.
“Nicotine can have direct harmful effects on the male who is using it, and as our study now suggests, also have adverse effects on his offspring’s cognitive function,” Bhide said in an e-mail.

The researchers said that when the male mice were bred with female mice that had never been exposed to nicotine, their offspring displayed hyperactivity, attention deficit, and cognitive inflexibility.

The effect even extended to a second generation: when the female children (but not the male children) were bred with males that had not been exposed to nicotine, their offspring still displayed significant deficits in cognitive flexibility, researchers said.